

# Qimai Li 中文版

## Personal Info

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Position: Ph.D. Student                      Organization: The Hong Kong Polytechnic University  
Email: [csqqli@comp.polyu.edu.hk](mailto:csqqli@comp.polyu.edu.hk)      HomePage: <https://liqimai.github.io>

## Education

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2019/09 - Present      **The Hong Kong Polytechnic University**  
Ph.D. in Computing Science

2013/09 - 2017/06      **Zhejiang University**  
B.E. in Computer Science      GPA 3.87/4.0

## Selected Publications

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**Published 7 papers in top AI conferences, 3 as first author, 2 as co-first author, 800+ citations.**

- [1] **Qimai Li**, Xiaotong Zhang, Han Liu, Quanyu Dai, and Xiao-Ming Wu. “Dimensionwise Separable 2-D Graph Convolution for Unsupervised and Semi-Supervised Learning on Graphs.” In *Proceedings of the 27th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2021.
- [2] Jiaxin Chen, Xiao-Ming Wu, Yanke Li, **Qimai Li**, Li-Ming Zhan, Fu-lai Chung. “A Closer Look at the Training Strategy for Modern Meta-Learning.” In *Proceedings of the Thirty-fourth Conference on Neural Information Processing Systems (NeurIPS)*, 2020.
- [3] Guangfeng Yan, Lu Fan, **Qimai Li (co-first author)**, Han Liu, Xiaotong Zhang, Xiao-Ming Wu, and Albert Y.S. Lam. “Unknown Intent Detection Using Gaussian Mixture Model with an Application to Zero-shot Intent Classification.” In *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (Long Paper) (ACL)*, 2020.
- [4] Han Liu, Xiaotong Zhang, Lu Fan, Xuandi Fu, **Qimai Li**, Xiao-Ming Wu, and Albert Y.S. Lam. “Reconstructing Capsule Networks for Zero-shot Intent Classification.” In *Proceedings of 2019 Conference on Empirical Methods in Natural Language Processing (Long Paper) (EMNLP)*, 2019.
- [5] **Qimai Li**, Xiao-Ming Wu, Han Liu, Xiaotong Zhang, and Zhichao Guan. “Label efficient semi-supervised learning via graph filtering.” In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 9582-9591, 2019.
- [6] Xiaotong Zhang, Han Liu, **Qimai Li (co-first author)** and Xiao-Ming Wu. “Attributed Graph Clustering via Adaptive Graph Convolution.” In *Proceedings of the 28th International Joint Conference on Artificial Intelligence (IJCAI)*, 2019.
- [7] **Qimai Li**, Zhichao Han, and Xiao-Ming Wu. “Deeper insights into graph convolutional networks for semi-supervised learning.” In *Thirty-Second AAAI Conference on Artificial Intelligence (AAAI)*, 2018. **Oral Presentation**. Selected as one of the **Most Influential AAAI Papers** by Paper Digest (**673 Citations** as of June 29, 2021).

- [8] Yong Wang, Xiao-Ming Wu, **Qimai Li**, Jiatao Gu, Wangmeng Xiang, Lei Zhang, and Victor OK Li. “Large Margin Meta-Learning for Few-Shot Classification.” In *Workshop on Meta-Learning at Thirty-second Annual Conference on Neural Information Processing System (MetaLearn @NuerIPS)*, 2018.

## Work under Review

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- [1] Fan Lu, **Qimai Li**, Bo Liu, Xiaotong Zhang, Fuyu Lv, Guli Lin, Sen Li, Taiwei Jin, Keping Yang, and Xiao-Ming Wu. “Enriching Product Representations with Graph Convolution for Personalized Product Search.” In submission to **ICDM** 2021.
- [2] Cong Wang, **Qimai Li**, Xiao-Ming Wu, Jinshan Pan. “Single Image Deraining Using Multi-Scale Graph Neural Networks with Exemplars.” In submission to **ICCV** 2021.

## Awards

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- 2021 One of the Most Influential AAAI Papers selected by Paper Digest, 10 out of 933 accepted papers in 2018, top 1.1%.
- 2019 Hong Kong Ph.D. Fellowship (250 out of 14,000+, 1.7% acceptance rate).
- 2019 - 2021 COMP Scholarship for HK PhD Fellowship Students.
- 2017 - 2019 Postgraduate Scholarship in the Hong Kong Polytechnic University.
- 2016 Second-Class Prize in HUAWEI Code Craft, 256 out of 11409, Top 2.3%.
- 2016 Honorable Mention in the Mathematical Contest in Modeling, USA.
- 2016 Excellent Group in Student Research Training Program, Zhejiang University.
- 2015 & 2016 Scholarship for Outstanding Merits, Zhejiang University.
- 2015 & 2016 Scholarship for Outstanding Students, Zhejiang University.

## Experiences

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- 2020 - 2021 | Alibaba DAMO Academy  
Worked on Taobo product search system. Designed personalized product search algorithm with graph convolution.
- 2019 - 2020 | Fano Labs  
Developped zero/few-shot learning algorithm for new intent detection to boost chat robots and customer service system.
- Summer 2016 | Huawei Technologies Co., Ltd.  
Worked on smart transportation system. Implemented, tested and compared different algorithms for car detection and recognition.

## Projects

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- 2015/09- 2016/01 | Serenity (Computer System)  
Serenity is a tiny but complete computer system. All software and most hardware were designed by our own team. It consists of 5 parts – a single-core, 5-stage-pipelined CPU with MIPS ISA, 64KB memory, I/O system, a single-job operating system, several user applications. We also developed a virtual machine of our computer system running on Windows.
- 2015/04 - 2016/04 | Heart (Heart Rate Monitor)  
Heart is an android application for heart-rate measurement. With our application, you can measure heart rate anywhere and anytime without extra devices other than your smart phone. This project was entitled as excellent SRTP project by College of Biomedical Engineering & Instrument Science, Zhejiang University.

# 李其迈

## 联系方式

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## 教育经历

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2019 - 至今    **香港理工大学**  
                  计算科学 Ph.D.    导师 Prof. Xiao-Ming WU

2013 - 2017    **浙江大学**  
                  计算机科学与技术    工学学士            GPA 3.87/4.0

## 论文发表

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7 篇 AI 顶会论文, 2 篇在投; 其中 3 篇一作, 2 篇共同一作; 文章总计被引用 800+ 次。

- [1] **Qimai Li**, Xiaotong Zhang, Han Liu, Quanyu Dai, and Xiao-Ming Wu. “Dimensionwise Separable 2-D Graph Convolution for Unsupervised and Semi-Supervised Learning on Graphs.” In *Proceedings of the 27th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2021.
- [2] Jiaxin Chen, Xiao-Ming Wu, Yanke Li, **Qimai Li**, Li-Ming Zhan, Fu-lai Chung. “A Closer Look at the Training Strategy for Modern Meta-Learning.” In *Proceedings of the Thirty-fourth Conference on Neural Information Processing Systems (NeurIPS)*, 2020.
- [3] Guangfeng Yan, Lu Fan, **Qimai Li (co-first author)**, Han Liu, Xiaotong Zhang, Xiao-Ming Wu, and Albert Y.S. Lam. “Unknown Intent Detection Using Gaussian Mixture Model with an Application to Zero-shot Intent Classification.” In *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (Long Paper) (ACL)*, 2020.
- [4] Han Liu, Xiaotong Zhang, Lu Fan, Xuandi Fu, **Qimai Li**, Xiao-Ming Wu, and Albert Y.S. Lam. “Reconstructing Capsule Networks for Zero-shot Intent Classification.” In *Proceedings of 2019 Conference on Empirical Methods in Natural Language Processing (Long Paper) (EMNLP)*, 2019.
- [5] **Qimai Li**, Xiao-Ming Wu, Han Liu, Xiaotong Zhang, and Zhichao Guan. “Label efficient semi-supervised learning via graph filtering.” In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 9582-9591, 2019.
- [6] Xiaotong Zhang, Han Liu, **Qimai Li (co-first author)** and Xiao-Ming Wu. “Attributed Graph Clustering via Adaptive Graph Convolution.” In *Proceedings of the 28th International Joint Conference on Artificial Intelligence (IJCAI)*, 2019.
- [7] **Qimai Li**, Zhichao Han, and Xiao-Ming Wu. “Deeper insights into graph convolutional networks for semi-supervised learning.” In *Thirty-Second AAAI Conference on Artificial Intelligence (AAAI)*, 2018. **Oral Presentation**. Selected as one of the **Most Influential AAAI Papers** by Paper Digest (**673 Citations** as of June 29, 2021).

- [8] Yong Wang, Xiao-Ming Wu, **Qimai Li**, Jiatao Gu, Wangmeng Xiang, Lei Zhang, and Victor OK Li. "Large Margin Meta-Learning for Few-Shot Classification." In *Workshop on Meta-Learning at Thirty-second Annual Conference on Neural Information Processing System (MetaLearn @NuerIPS)*, 2018.

## 在投论文

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- [1] Fan Lu, **Qimai Li**, Bo Liu, Xiaotong Zhang, Fuyu Lv, Guli Lin, Sen Li, Taiwei Jin, Keping Yang, and Xiao-Ming Wu. "Enriching Product Representations with Graph Convolution for Personalized Product Search." In submission to **ICDM** 2021.
- [2] Cong Wang, **Qimai Li**, Xiao-Ming Wu, Jinshan Pan. "Single Image Deraining Using Multi-Scale Graph Neural Networks with Exemplars." In submission to **ICCV** 2021.

## 奖项

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- 2021 AAAI-18 论文被 Paper Digest 评为最具影响力 AAAI 论文之一，目前引用 673 次。在当年 993 篇被接受文章中，影响因子排前 10 (前 1.1%)。
- 2019 入选香港博士研究生奖学金计划 (14,000+ 录取 250 人, 1.7% 录取率)。
- 2019 - 2021 电子计算学系香港博士 Fellow 学生奖学金。
- 2017 - 2019 香港理工大学研究生津贴。
- 2016 华为软件精英挑战赛杭夏赛区二等奖
- 2016 国际数学建模大赛提名奖
- 2016 浙江大学大学生科研训练计划优秀小组
- 2015 及 2016 浙江大学三等学业奖学金
- 2015 及 2016 浙江大学三等优秀学生奖学金

## 技能

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- 精通: Python, C/C++, Tensorflow, PyTorch, LaTeX, Git.
- 掌握: Matlab, Java, HTML5, OpenCV, CUDA programming, JavaScript, Verilog.
- 熟悉: CSS, Golang, SQL, MongoDB, MySQL.

## 经历

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- 2020 | 阿里巴巴达摩院  
利用图卷积为淘宝产品搜索系统开发个性化的产品搜索算法。
- 2019 | 有光科技 Fano Labs  
为对话系统和智能客服开发零样本和小样本学习算法进行意图检测。
- 2016 | 华为杭州研究所  
实现、测试、比较多种车辆检测和车牌识别算法。提高了在特定场景下识别和检测的准确率、召回率。

## 项目

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- 2016/04 - 2016/06 | **GrabCut 交互式图像分割系统**  
对于图像前背景分割算法 GrabCut 的实现。用户通过少量几次点击示意前景区域和背景区域，之后由程序自动完成整个分割，分割完成后用户可以继续增加点击，获得更好的分割效果。
- 2015/09- 2016/01 | **Serenity 简易计算机系统**  
Serenity 是一个小型但是完整的计算机系统，所有软硬件均由我们小组 3 人自主设计。它由 CPU, I/O 系统, 操作系统, 用户程序四部分组成。CPU 是单核、5 级流水线，使用 MIPS 指令集；I/O 系统包含三部分——显示输出、硬盘读写和键盘输入；操作系统是一个单任务批处理系统；用户程序包含一些实用的命令行工具。我在其中负责设计所有的硬件，并开发了一个运行在 windows 上的模型该系统的虚拟机。
- 2015/06 - 2015/07 | **Whatever 搜索引擎**  
Whatever 是一个通用网页搜索引擎。它支持通配符查询、拼写纠正、同义词查询、短语查询。它实现了多种信息检索算法，包括布尔模型、向量空间模型、tf-idf 特征、PageRank。
- 2015/04 - 2016/04 | **Heart 智能手机心率监测软件**  
Heart 是一个 Android 平台的心率检测软件。我们通过摄像头拍摄视频获取心跳信号，之后通过降噪和谐分析从视频中提取出心率数据，其准确率与医用专业设备相当。通过我们的软件，用户仅需一台智能手机就可以方便检测自己的心率数据，无需购买额外的设备。在大学生科研训练计划中，我们被浙江大学生物医学工程与仪器科学学院评选为优秀小组。